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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,972	02/12/2002	Bernd Stuckenholtz	STUCKENHOLZ1	3499

1444 7590 09/12/2003

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EXAMINER

OJINI, EZIAMARA ANTHONY

ART UNIT	PAPER NUMBER
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3723

DATE MAILED: 09/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/072,972

Applicant(s)

STUCKENHOLZ ET AL.

Examiner

Anthony Ojini

Art Unit

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the upper and lower covering layers of combined glass fabric and a glass yarn layer, must be shown or the feature(s) canceled from the claim(s) because applicant disclosed in the specification on page 5, lines 14-16 that the upper covering layer 6 and the lower covering layer 8 either consist of a textile glass fabric or of a glass-yarn layer. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-11 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akita et al. (5,431,596) in view of Erickson (Re 24,548) and Benedict et al. (5,924,917).

**With respect to claims 1,4-7,11,14-17**, Akita et al. disclose a surface grinding wheel comprising a supporting disk (20) and abrasive laminas (30) fixed to the supporting disk, the supporting disk comprising a glass-fiber reinforced phenolic resin body (21), which includes layer of a woven fabric made of glass fiber (col. 3, lines 50-68 & fig. 2).

Akita et al. fail to disclose a plurality of layers of textile glass fabric and a glass yarn combined; and an intermediate layer of a fiber mat that are sewn together.

Erickson discloses a plurality of layers of glass yarn (41). (*bonded*)

Benedict et al. disclose intermediate layer of a fiber mat consisting of natural fibers (col.19, lines 1-3), synthetic organic fibers (col. 19, lines 1,3-4), glass-fabric, (see col. 17, lines 29,30 & col.18, lines 15,16).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Akita et al. with a plurality of layers of glass yarn and an intermediate layer of a fiber mat that are sewn together in view of Erickson and Benedict et al. so as to ensure a strength and tear resistance.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Akita et al. with an intermediate layer of a fiber mat in view of Benedict et al. so as to held firmly the layers of the glass fiber.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Akita et al. with a plurality of layers of a textile glass fabric and a glass yarn combined, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

**With respect to claims 8,18,** Akita et al. disclose wherein the woven glass -fiber are comprised of warp threads (221) and weft thread (222) which are glass-fiber roving (see fig. 4) but fail to disclose glass-yarn comprising warp threads and weft thread which are glass-fiber ravings.

Erickson discloses a plurality of layers of glass yarn comprising warp threads (11,12) and weft thread (13) that are glass-fiber rovings (see fig. 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Akita et al. with a plurality of layers of glass yarn comprising warp threads and weft thread which are glass-fiber rovings in view of Erickson so as to ensure a strength and tear resistance.

**With respect to claims 9,19,** Akita et al. fail to disclose a plurality of layers of textile glass fabric and an intermediate layer of a fiber mat wherein the intermediate layer of a fiber mat is thicker than the upper layer of textile glass fabric and lower layer of textile glass fabric.

Erickson discloses an intermediate layer (42) that is thicker than two glass fabric layers (41).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Akita et al. with an intermediate layer that is thicker than two glass fabric layers in view of Erickson so as to avoid crushing the two glass fabric layers during grinding operation.

**With respect to claims 10,20**, Akita et al. fail to disclose a plurality of layers of textile glass fabric and an intermediate layer wherein the fabric layers have a higher tensile strength than the intermediate layer.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Akita et al. with a plurality of layers of textile glass fabric and an intermediate layer wherein the fabric layers have a higher tensile strength than the intermediate layer, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331.

Claims 2,3,12,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akita et al. in view of Erickson and Benedict et al. as applied to claims 1,11 above, and further in view of Applicant Admitted Prior Art.

**With respect to claims 2,3,12,13**, Akita et al. fail to disclose an intermediate layer that is a fiber fleece of a volume enlarged by needling.

**Applicant Admitted Prior Art** discloses an intermediate layer that is a fiber fleece of a volume enlarged by needling (page 6, lines 6-8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Akita et al. with an intermediate layer that is a fiber fleece in view of **Applicant Admitted Prior Art** so as to multiply and increase the volume of the intermediate layer.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bates, McClure, Lakhani, Malm, Hettes et al. disclose reinforced grinding wheel respectively.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Ojini whose telephone number is 703 305 3768. The examiner can normally be reached on 7.30 to 5.00 Tuesday-Friday with every other Monday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 703 308 2687. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 1148.

*AOjini*

AO  
September 4, 2003

